

CITY OF BELLEVUE AMENDMENTS

23.11.100 Adoptions – International Fire Code.

The International Fire Code 2012 Edition, and Appendices B and C, all published by the International Code Council, as adopted by the State Building Code Council in Chapter 51-54A WAC, and as amended, added to or excepted in this chapter, and not including International Fire Code sections 108.2, 108.3, 109.1, 109.3, 109.3.1, 109.3.2, 109.3.3, 109.3.4, 109.4, 604.2.15.1.2, 905.3.4, 905.3.4.1, 907.2.7.1 and 914.3.1.2, are adopted by reference thereto as though fully set forth herein and shall be applicable within the city. Not less than one copy of such code, appendices and standards, in the form in which it was adopted shall be filed in the city clerk's office and shall be available for use and examination by the public.

23.11.101 Definitions.

As used in this chapter:

- A. "Fire code official" means the fire marshal or his or her designee.
- B. Terms used in this chapter and otherwise defined in Chapter 1.18 BCC shall have the meanings set forth in Chapter 1.18 BCC as now or hereafter amended.
- C. Point of information. Text marked "Point of Information" is for guidance only and does not have the force of law.

[WS] 101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted. The State Building Code Council has determined that a local ordinance adopting Appendix K Wildland Urban Interface Code may be adopted by any local government upon notification of the Council.

[WS] denotes Washington State amendment

23.11.102 Violations.

- A. Unless otherwise provided for herein, any violation of this chapter or the code, appendices or standards adopted herein or any failure to comply with any lawful order of the chief or his authorized representative may be prosecuted as a misdemeanor or may be treated as a civil violation under Chapter 1.18 BCC. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue.

B. In addition to those costs and expenses listed in Chapter 1.18 BCC (Civil Violations), the city may recover costs from responsible persons, or business or property owners for any of the following:

1. Suppression and investigation of incendiary fires where the responsible party has been duly convicted of causing the fire.
2. Suppression and investigation of fires resulting from or aggravated by a condition that was a code violation for which a violation notice or letter of violation was issued, but not corrected.
3. Suppression and investigation of fires resulting from an escape of a control burn.
4. Extinguishment of an illegal control burn or a control burn in violation of a permit where adequate private fire extinguishing capability has not been provided or where private fire extinguishing efforts have been unsatisfactory.
5. Repeat responses to situations involving illegal burning.
6. Mitigation of a hazardous materials incident when the duration of the incident exceeds two hours.
7. Preventable responses to fire alarms when the number exceeds five nonexempt preventable responses to a single alarm system during a calendar year. This shall be in addition to any fees assessed under BCC 23.11.901.11. The chief may credit costs of system improvement to prevent responses or other life or life safety improvements to offset charges for fire departmental costs.
8. Extraordinary expenses incurred in, or as a result of, the control or extinguishment of fires or mitigation of hazardous materials incidents.

C. Chargeable costs under this section shall include the following:

1. Personnel costs (including salaries, overtime, fringe benefits, etc.) for the time that involved personnel were not available to respond to valid emergencies.
2. Apparatus costs according to the "Fee Schedule for Hazardous Materials Incidents and/or Fire Suppression" established by the King County Fire Chiefs' Association.

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3. With regard to subsection (B)(8) of this section, costs may include damaged, destroyed or contaminated equipment (such as protective clothing and fire hose); special supplies utilized (such as fire-fighting foams and absorbent pads); and cost of specialized or heavy equipment and their operation including that of other fire agencies, other departments of the city of Bellevue and private contractors or suppliers when such equipment is determined to be needed by the chief.
4. Administrative and any other costs associated with the recovery of these costs.

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 80 of the International Fire Code, and such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

Point of Information

When allowed by the Fire Code official, editions of standards not herein referenced may be utilized provided the entire standard is utilized.

102.7.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.7.2 Provisions in referenced codes and standards.

Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced code or standard.

104.1 General. The chief is hereby authorized to administer and enforce this code and to adopt policies, procedures, rules, and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code. The chief hereby delegates to the fire code official all authority under this chapter to enforce all ordinances of the jurisdiction pertaining to:

1. The prevention of fires.
2. The suppression or extinguishment of dangerous or hazardous fires.
3. The storage, use and handling of hazardous materials.
4. The installation and maintenance of automatic, manual and other private fire alarm systems and fire-extinguishing equipment.
5. The maintenance and regulation of fire escapes.
6. The maintenance of fire protection and the elimination of fire hazards on land and in buildings, structures and other property, including those under construction.
7. The maintenance of exits.
8. The investigation of the cause, origin and circumstances of fire and unauthorized release of hazardous materials.

104.1.1 Fire department personnel and police.

The chief and members of the fire prevention bureau shall have the powers of a police officer performing their duties under this code.

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104.11.2 Obstructing operations. No person shall obstruct the operations of the fire department in connection with extinguishment, investigation, or control of any fire, or actions relative to other emergencies, or disobey any lawful command of the fire chief or officer of the fire department in charge of the emergency, or any part thereof, or any lawful order of a police officer assisting the fire department.

104.10.1 Assistance from other agencies. Police and other enforcement agencies shall have authority to render necessary assistance in the investigation of fires or the enforcement of this code as requested by the fire code official.

105.1.1 Permits required. Any property owner or authorized agent who intends to conduct an operation or business, or install or modify systems and equipment which is regulated by this code, or to cause any such work to be done, shall first make application to the fire code official and obtain the required permit. Permit fees, if any, may be required to be paid prior to issuance of the permit. Failure to pay the required permit fee may result in cancellation of the permit.

105.2.3 Time limitation of application

1. Applications for which no permit is issued within one year following the date of application shall expire. Plans and other data submitted with the application may thereafter be returned to the applicant or destroyed in accordance with state law by the fire code official. The fire code official may, prior to expiration, extend the time for action by the applicant for a period not to exceed 180 days.
2. Applications may be canceled for inactivity if an applicant fails to respond to the department's written request for revisions, corrections, actions or additional information within 90 days of the date of request. The fire code official may extend the response period beyond 90 days if, within the original 90-day time period, the applicant provides and subsequently adheres to an approved schedule with specific target dates for submitting the full revisions, corrections or other information needed by the department.
3. In addition to the extension allowed in subsection (1) of this section, the fire code official may extend the life of an application if any of the following conditions exist:
 - a. Compliance with the State Environmental Policy Act is in progress; or
 - b. Any other city review is in progress; provided the applicant has submitted a complete response to city requests or the fire code official determines that unique or unusual circumstances exist that warrant additional time for such response, and the fire code official determines that the review is proceeding in a timely manner toward final city decision; or
 - c. Litigation against the city or the applicant is in progress, the outcome of which may affect the validity or the provisions of any permit issued pursuant to such application.

In no event may the fire code official extend the application for a period of more than 180 days following the conclusion of any of the conditions described in subsection (3).

105.3.1 Expiration. An operational permit shall remain in effect until reissued, renewed, or revoked or for such a period of time as specified in the permit.

Construction permits issued by the fire code official under the provisions of this chapter shall expire by limitation and become null and void if the work authorized by such permit is not commenced within one year from the date of such permit, or if work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days except that the fire code official may extend permits associated with single-family construction for an additional period of up to 180 days at his or her sole discretion.

Construction permits issued under which work is continuously performed and the necessary periodic inspections are completed shall be extended beyond the one-year period by the fire code official for a period of no more than one year. No more than two one-year extensions shall be granted except that the fire code official may extend permits associated with single-family construction for an additional period of up to 90 days at his or her sole discretion.

Before such work recommences, a new permit shall be first obtained. Permits are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued

105.6.16 Flammable and combustible liquids. An operational permit is required:

1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the off-site transportation in pipelines regulated by the Department of Transportation (DOT) nor does it apply to piping systems.
2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10

gallons (37.9 L) outside of a building, except that a permit is not required for the following:

- 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, or storage of approved portable motor boat fuel containers of six (6) gallons (22.7L) or less individual capacity and twelve (12) gallons (45.4L) aggregate capacity, unless such storage, in the opinion of the fire code official, would cause an unsafe condition.
- 2.2. The storage or use of paints, oils, varnishes or similar flammable mixtures when such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days.
3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil-burning equipment.
4. To store, handle or use Class IIIB liquids in tanks or portable tanks for fueling motor vehicles at motor fuel-dispensing facilities or where connected to fuel-burning equipment.
5. To remove Class I or Class II liquids from an under-ground storage tank used for fueling motor vehicles by any means other than the approved, stationary on-site pumps normally used for dispensing purposes.
6. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.
7. To place temporarily out of service (for more than 90 days) an underground, protected above-ground or above-ground flammable or combustible liquid tank.
8. To change the type of contents stored in a flammable or combustible liquid tank to a material which poses a greater hazard than that for which the tank was designed and constructed.
9. To manufacture, process, blend or refine flammable or combustible liquids.
10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments.
11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments.
12. To engage in the business of removing, abandoning or otherwise disposing of residential heating oil tanks.

105.6.47 Emergency responder radio coverage system. An operational permit is required to operate an Emergency Responder Radio Coverage System as prescribed in Bellevue City Code 23.11.510.

105.6.48 Positive alarm sequence. An operational permit is required to operate a PAS (Positive Alarm Sequence) Account as prescribed in NFPA (National Fire Protection Association) 72.

108.1 Appeals Established.

1. The City of Bellevue Hearing Examiner may hear appeals relating to the following:

A. The fire code official's denial of an application for an operational permit under Section 105 of the International Fire Code as adopted by this chapter and now or hereafter amended;

B. The fire code official's denial of an application for a construction permit under Section 105 of the International Fire Code as adopted by this chapter and now or hereafter amended;

C. The determination by the fire code official that a nonexempt preventable fire department response to a fire alarm has occurred under BCC 23.11.901.11 as now or hereafter amended.

2. The applicant in A or B above, or the responsible party in C above, may appeal to the City of Bellevue Hearing Examiner within thirty days from the date of the fire code official's determination. The fire code official's determination shall be in writing and shall constitute the final decision of the City. Appeals of determinations made by the fire code official in proceedings authorized under Chapter 1.18 BCC shall be heard simultaneously with the underlying action before the hearing examiner presiding over the proceeding.

107.5 Overcrowding. Overcrowding or admittance of any person beyond the *approved* capacity of a building or a portion thereof shall not be allowed. The *firecode official*, upon finding any overcrowding conditions or obstructions in aisles, passageways or other means of egress, or upon finding any condition which constitutes a life safety hazard, shall be authorized to direct actions be taken to reduce the overcrowding or to cause the event to be stopped until such condition or obstruction is corrected.

107.6 Unauthorized tampering. Signs, tags or seals posted or affixed by the fire code official shall not be mutilated, destroyed or tampered with or removed without authorization from the fire code official.

108.2 Limitations on Authority – This section is not adopted (reference BCC 23.11.100)

108.3 Qualifications – This section is not adopted (reference BCC 23.11.100)

109.3.1 Abatement of violation. In addition to the enforcement provisions of 23.11.102, the fire code official is authorized to institute appropriate action

to prevent unlawful construction or to restrain, correct or abate a violation; or to prevent illegal occupancy of a structure or premises; or to stop an illegal act, conduct of business or occupancy of a structure on or about any premises.

109.1 Unlawful acts. – This section is not adopted (reference BCC 23.11.100)

109.3 Notice of Violation. - This section is not adopted (reference BCC 23.11.100)

109.3.1 Service. - This section is not adopted (reference BCC 23.11.100)

109.3.2 Compliance with order and notices. - This section is not adopted (reference BCC 23.11.100)

109.3.3 Prosecution of violation. - This section is not adopted (reference BCC 23.11.100)

109.3.4 Unauthorized tampering. - This section is not adopted (reference BCC 23.11.100)

109.4 Violation penalites. - This section is not adopted (reference BCC 23.11.100)

113.1 Fees. A permit shall not be issued until the fees have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

113.2 Schedule of permit fees. A fee for each permit shall be paid as required, in accordance with Table 113.6.

These fees shall be reviewed annually, and, effective January 1 of each year, administratively increased or decreased by an adjustment to reflect the current published annual change in the Seattle Consumer Price Index for Wage Earners and Clerical Workers.

113.3 Work commencing before permit issuance. Any person who commences any work, activity or operation regulated by this code before obtaining the necessary permits shall reimburse the City for all expenses related to any enforcement proceedings and be subject to a penalty levied in an amount up to double the fee required for the work, activity or operation commenced prior to obtaining the necessary permits which shall be in addition to the required permit fees.

This provision does not apply to emergency work, activity or operations when it is proved to the satisfaction of the Fire Marshal that such work, activity or operation was urgently necessary and that it was not practical to obtain a permit before commencement of the work, activity or operation.

In all such cases, a permit must be obtained as soon as it is practical to do so; and if there is an unreasonable delay in obtaining the permit, a double fee (as provided for in this ordinance) will be charged. They payment of this double fee does not relieve any person from fully complying with the requirements of the Bellevue City Code in the execution of the work or from any other penalties prescribed by law. Such person may also be

required to reimburse the City for all expenses related to any enforcement proceedings as determined by the Fire Marshal.

113.4 Related fees. The payment of the fee for the construction, alteration, removal or demolition of work done in connection to or concurrently with the work or activity authorized by a permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

113.5 Refunds. The applicable governing authority is authorized to establish a refund policy.

Table 113.6

Operational permit fees. A fee of \$106.50 shall be charged annually for each type of operational permit (as defined in International Fire Code Section 105.6).

Exceptions:

1. Any hazardous material with multiple classifications shall be charged only once.
2. No fees shall be charged for candles in a place of assembly or parade floats.
3. Fees shall be waived for government agencies and non-profit organizations.
4. A fee of \$200.00 shall be charged for pyrotechnical effects permits.

Construction permit fees. The fee for each permit shall be as set forth in the fee ordinance, as now or hereafter amended.

Re-inspection fee. A re-inspection fee may be assessed when all of the following criteria have been met:

- Code violations have been identified by the fire code official
- A written notice has been issued to the responsible party, identifying the code

- violations and a time period to make corrections.
- The code violations have not been corrected within the specified period.

The fee shall be \$139.00/hour with a one hour minimum.

Late Fee. All balances 30 days or greater past the invoice date are assessed a late charge of 1%, with a minimum charge of \$25 per month.

307.1.1 Open burning prohibited. Open burning shall not be conducted at any time in compliance with a permanent ban on open burning established by the Puget Sound Air Pollution Control Agency in September of 1992.

Point of Information

For air quality and burn ban status information and regulations contact the Puget Sound Clean Air Agency at www.pscleanair.org or (206) 343-8800.

[WS] 307.2.1 Authorization. Where required by state or local law or regulations, open burning shall only be permitted with prior approval from the state or local air and water quality management authority, provided that all conditions specified in the authorization are followed. See also WAC 173-425.

[WS] 307.4.2 Recreational Fires. Recreational fires shall not be conducted within 25 feet of a structure or combustible material. Conditions which could cause a fire to spread within 25 feet of a structure shall be eliminated prior to ignition. See also WAC 173-425.

[WS] 308.1.4 Open-flame cooking devices. This section is not adopted.

[WS] Denotes Washington State amendment.

Effective July 1, 2013

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(remove State Amendment)

315.3.2.1 Storage under stairways. Storage is prohibited under exit stairways.

Exception: Enclosures under stairways in accordance with Section 1009.9.3.

**SECTION 319
FIXED GUIDEWAY TRANSIT AND PASSENGER
RAIL SYSTEMS**

319.1 Fixed guideway transit and passenger rail systems. Fixed guideway transit and passenger rail systems shall be in accordance with NFPA 130 as amended in Chapter 23.85 BCC.

**SECTION 320
ROAD TUNNELS, BRIDGES AND OTHER
LIMITED ACCESS HIGHWAYS**

320.1 Road tunnels, bridges and other limited access highways. Road tunnels, bridges, and other limited access highways shall be in accordance with NFPA 502.

[WS] 401.2 Approval. Where required by the fire code official, fire safety plans, emergency procedures and employee training programs shall be approved.

[WS] 402.1 Definitions. The following terms are defined in Chapter 2:

ALARM SIGNAL

ALERT SIGNAL

ALERT SYSTEM

EMERGENCY DRILL

SHELTER-IN-PLACE

RECALL SIGNAL

401.9 Evacuation required. In the event of activation of a fire, emergency alarm, or at the direction the fire code official, occupants of the building or portion of the building in which the alarm is activated shall make a safe and orderly evacuation out of the building, or as provided in the building's fire safety and evacuation or high-rise emergency operations plan.

Exceptions:

1. Where the occupant's physical or other disability make the occupant unable to evacuate without assistance and no assistance is immediately available; or
2. Where the presence of smoke, fire, structural collapse or other hazard or obstruction in the occupant's means of egress make evacuation unsafe.

[WS] denotes Washington State amendment

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404.3.2 Fire safety and evacuation plans.

Fire safety and evacuation plans shall include the following:

1. The procedure for reporting a fire or other emergency.
2. The life safety strategy and procedures for notifying, relocating or evacuating occupants, including occupants who need assistance.
3. Site plans indicating the following:
 - a. The occupancy assembly point.
 - b. The locations of fire hydrants.
 - c. The normal routes of fire department vehicle access.
4. Floor plans identifying the locations of the following:
 - a. *Exits*.
 - b. Primary evacuation routes.
 - c. Secondary evacuation routes.
 - d. Accessible egress routes.
 - e. Areas of refuge.
 - f. Exterior areas for assisted rescue.
 - g. Manual fire alarm boxes.
 - h. Portable fire extinguishers.
 - i. Occupant-use hose stations.
 - j. Fire alarm annunciators and controls.
5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.
8. High-rise emergency operations plan required. In addition to fire safety and evacuation plans set forth in 404.3.2

subsections 1-7, all high-rise buildings shall prepare a high-rise emergency operations plan. The high-rise emergency operations plan must be approved by the fire code official. The plan shall be prepared as specified in the Bellevue Fire Department High rise Emergency Handbook and shall include the following sections:

- Section 1. Responsibilities.
- Section 2. Fire Reporting.
- Section 3 Evacuation.
- Section 4. Fire Control Procedures.
- Section 5 Post-Fire Operations.
- Section 6. Confidence Testing.
- Section 7. High Value List.
- Section 8. Shutoff Valve List.
- Section 9. Floor Plans.

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3 and the City of Bellevue Transportation Department Design Standards and Manual.

503.1.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an *approved* route around the exterior of the building or facility.

Exceptions: The fire code official is authorized to increase the distance:

1. Up to 200 feet where the building is equipped throughout with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3
2. Where fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.

Alternate means may include installation of stairs that extend to the roof, sprinkler system, fire alarm system, standpipes, smoke control system, ready access to fire service elevators and others (sometimes in combination) to mitigate the additional access distance.

3. There are not more than two Group R-3 or Group U occupancies.

503.1.2 Additional access. The fire code official is authorized to require more than one fire apparatus
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access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

503.1.3 High-piled storage. Fire department vehicle access to buildings used for *high-piled combustible storage* shall comply with the applicable provisions of Chapter 23.

503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8, and the City of Bellevue Transportation Department Design Standards and Manual.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except as modified in the City of Bellevue Transportation Department Design Standards and Manual, and an unobstructed vertical clearance of not less than 13 ft. 6 in.

Exceptions:

1. Access roads serving not more than two Group R-3 or U occupancies shall have an unobstructed width of not less than 16 feet.
2. Public streets shall be in accordance with the City of Bellevue Transportation Department Design Standards and Manual.
3. When all structures served by the fire apparatus access roads are equipped with *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3 the *fire code official* may approve reduced widths.

503.2.2 Authority. The fire code official shall have the authority to require an increase in the minimum access widths where they are inadequate for fire or rescue operations.

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(remove State Amendment)

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all weather driving capabilities.

503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be 28 feet minimum inside curb and 48 feet minimum outside curb.

503.2.5 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with a turnaround in accordance with the City of Bellevue Transportation Department Design Standards and Manual.

Exception: The *fire code official* is authorized to increase the length up to 300 feet (45 720 mm) for driveways serving only one Group R-3 occupancy.

503.2.6 Bridges and elevated surfaces. Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with the City of Bellevue Transportation Department Design Standards and Manual. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the *fire code official*. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, *approved* barriers, *approved* signs or both shall be installed and maintained when required by the *fire code official*.

503.2.7 Grade. The grade of the fire apparatus access road shall be in accordance with the City of Bellevue Transportation Department Design Standards and Manual. Access roads, including public and private roads and driveways shall comply with the following.

1. The grade of access for non-sprinklered properties shall not exceed 12%.
2. The grade of access for sprinklered properties shall not exceed 15%.
3. All grades of access in excess of 15% require approval by the fire department.

503.2.8 Angles of approach and departure. The angles of approach and departure for fire apparatus access roads shall be in accordance with the City of

Bellevue Transportation Department Design Standards and Manual.

503.3 Marking. Where required by the fire code official fire apparatus access roads shall be marked as follows:

1. FIRE LANE - NO PARKING Signs shall be mounted a minimum of 7' from bottom of the sign to the street or sidewalk. Signs must be a type "R8-31" or equivalent reflective sign no less than 12" x 18" in size, with a white background and the wording "No Parking Fire Lane" in red letters. When in a straight line of sight, these signs shall be no further than one hundred fifty feet (150') apart. This distance may be reduced when curves, corners, or other adverse sighting conditions restrict the line of sight.
2. Designated Fire Department Access Roads (Fire Lanes) shall be also be painted red. This shall include both the vertical and horizontal portions of the curb. Minimum three-inch (3") white lettering which shall read: NO PARKING - FIRE LANE, shall be placed every fifty feet (50') or portion thereof on the vertical portion of the curb. The entire curb length shall be painted. If there are rolled curbs or no curbs, stenciling shall be placed on pavement.

Exception: Variations to Fire Lanes markings may be approved when in the opinion of the Fire Code Official the proposed signage and markings achieve the same outcome. The Fire Chief retains the right to revoke the variations for cause.

Point of Information

See Public Information Sheet F-11 for additional information (http://www.bellevuewa.gov/pdf/Fire/F-11_FireLanes.pdf)

503.4 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including parking of

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vehicles. The minimum widths and clearances established in Section 503.2.1 shall be maintained at all times.

503.4.1 Entrances. Entrances to roads, trails or other access ways which have been closed with gates and barriers in accordance with Section 503.5 shall not be obstructed by parked vehicles.

503.4.2 Towing notification. At each entrance to property where fire lanes have been designated, signs shall be posted in a clearly conspicuous location and shall clearly state that vehicles parked in fire lanes may be impounded, and the name, telephone number, and address of the towing firm where the vehicle may be redeemed.

503.4.3 Property owner responsible. The owner, manager or person in charge of any property upon which designated fire lanes have been established shall prevent the parking of vehicles or placement of other obstructions in such fire lanes.

503.4.4 Violation – civil infraction. Any person who fails to mark or maintain the marking of a designated fire lane as prescribed in this chapter or who parks a vehicle in, allows the parking of a vehicle in, obstructs or allows the obstruction of a designated fire lane commits a civil infraction to which the provisions of Chapter 7.80 RCW shall apply. The penalty for parking a vehicle in, allowing the parking of a vehicle in, obstructing or allowing the obstruction of a designated fire lane shall be one hundred dollars (\$100.00).

503.4.5 Impoundment. Any vehicle or object obstructing a designated fire lane, whether on public or private property, is hereby declared a hazard and may be abated without prior notification to its owner by impoundment pursuant to the applicable state law.

503.4.6. Authorization. The fire chief, or his or her designee, is authorized to take such lawful action, including impoundment or the writing and issuance of citations for civil infractions, as may be required to enforce the provisions of this section.

503.4.7 Obstructing a fire facility. It is hereby declared a violation of this section to stop, park a vehicle, or otherwise obstruct any fire station facility housing emergency response apparatus.

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be reviewed and approved by the fire code official. The use of directional-limiting devices (tire spikes) is prohibited. Where security gates are installed, they shall have an *approved* means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be *listed* in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200. Gates shall be at a minimum as wide as the required access road width. Gates on commercial properties must be set back 30 ft. from roadway edge of pavement. Where a fence is provided on each side of a gate for a commercial property, a man door shall be provided at an *approved* location with a Knox key for access to the man door.

504.4 Roof hatches. All required interior stairways that end to the top floor in any building four or more stories in height shall have, at the highest point of the stair shaft, an approved hatch that can open to the exterior not less than 16 square feet (1.5m²) in area and having a minimum dimension of 3 feet (610 mm).

Exception: A roof hatch need not be provided on stairways that extend to the roof with an opening onto that roof.

504.5. Buildings with enclosed interior

courtyards. New buildings with enclosed interior courtyards shall have a straight/direct access corridor and/or stairway from the exterior to the courtyard at a location acceptable to the fire code official. If a stairway is used it shall comply with International Fire Code Section 1009 and a corridor shall comply with International Fire Code Section 1018 The access shall have a minimum width of 4 feet, (or as directed by the fire code official), and be large enough to carry a 35 foot long sectional ladder (minimum folded length 20 feet) directly from the exterior to the courtyard without obstructions. The access door shall be marked at the street as "Direct access to courtyard".

507.1 Required Water Supply. An *approved* water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

All underground piping shall be designed, constructed and installed in accordance with NFPA 24 for Private fire service mains and NFPA 13 for water based fire protection systems. In addition to the requirements of these standards, two forms of joint restraint shall be used.

Point of Information

Piping systems under the control of the Bellevue Utilities Department shall be installed in accordance with the Bellevue Utilities Engineering Standard.

507.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method and shall be in accordance with Appendix B as amended, unless otherwise approved by the fire code official.

[WS] Exception: Fire flow is not required for structures under 500 square feet with a B, U or R-1 occupancy where structures are at least 30 feet from any other structure and are used only for recreation.

Point of Information

Fire flow shall be measure in accordance with WAC 246-290-230 & WAC 246-290-420 as now or hereafter amended.

507.5.1 Where required. Where any portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the Fire Code Official.

Exceptions:

1. For Group R-3 and U occupancies equipped throughout with an *approved* automatic sprinkler system installed in accordance with International Fire Code Section 903.3.1.3, the distance requirement shall be 600 feet.

[WS] denotes Washington State amendment

507.5.3 Private fire service mains and water tanks. Private fire service mains and water tanks shall be periodically inspected, tested and maintained in accordance with NFPA 25 at the following intervals:

1. Private fire hydrants (all types): Inspection annually and after each operation; flow test and maintenance annually. Property owners with private hydrants are responsible to obtain annual, satisfactory inspection of their private hydrant(s) from a qualified inspector. Inspection procedures and forms for inspection by the City or others are set by the fire code official. The fire official may order additional inspections as he deems necessary.
2. Fire service main piping: Inspection of exposed, annually; flow test every 5 years.
3. Fire service main piping strainers: Inspection and maintenance after each use.

507.5.3.1 Private Hydrants – Use

1. Fire hydrant protection may be provided by private fire hydrants.
2. No person may open, damage, interfere with, or otherwise use a private hydrant, except in a manner and subject to such conditions as the fire official may require.

507.5.3.2 Private Hydrants – regulations. The fire code official, with the assistance of the City of Bellevue Utilities Department, is authorized to establish regulations and design standards for private hydrants. These officials have the authority to interpret and apply the regulations and standards and to make rulings and orders consistent with the purpose of this chapter.

507.5.3.3 Private Hydrants - Inspection reports. Inspection reports of private hydrants must be submitted to the fire department within five working days of the date of inspection by the servicing inspector.

507.5.3.4 Private Hydrants – damage – malfunction. Property owners, their agents and tenants with private hydrants shall immediately contact the fire department in the event a private hydrant is damaged, malfunctions, or is otherwise out of order. "Immediately" means not more than forty-eight hours after a problem is noticed or should have been noticed in the exercise of reasonable care.

507.5.3.5 Private Hydrants – maintenance and repair. All maintenance and repair of private hydrants shall be solely the responsibility of the property owner. Obligations imposed upon property owners apply also to their managers and other authorized agents.

507.5.3.6 Private hydrants – access. Roads and access to the fire hydrant must be provided in accordance with International Fire Code Sections 503 and 507.

508.1.2 Separation & Penetrations. Fire command center shall be separated from the remainder of the building by not less than a 2 hr fire barrier constructed in accordance with section 707 of the International Building Code (IBC) or horizontal assembly constructed in accordance with section 712 of the IBC, or both.

Penetrations into and openings through a fire command center are prohibited except for required exit doors, equipment and ductwork necessary for heating, cooling or ventilation, sprinkler branch line piping, electrical raceway for fire department communication and control and electrical raceway serving the fire command center or being controlled from the fire command center. Such penetrations shall be protected in accordance with International Building Code Section 713.

Exception: Metallic piping with no joints or openings

Effective July 1, 2013

(Insert facing page 65)
(remove State Amendment)

510.1 Emergency responder radio coverage. All new buildings shall have approved radio coverage for emergency responders within the building installed in accordance with Section 510 of this code and with applicable provisions of NFPA 72, National Fire Alarm Signaling Code. This section shall not require improvement of the existing public safety communication system.

Exceptions:

1. Buildings and area of buildings that have minimum radio coverage signal strength levels of the King County Regional 800 MHz Radio System within the building in accordance with Section 510.4.1.
2. Buildings constructed primarily of wood frame that do not have storage or parking areas extending more than one level below grade.
3. Buildings thirty-five (35) feet high (As defined by International Building Code Section 502) or less that do not have below grade storage or parking areas extending more than one level below grade.

Should construction that is thirty-five (35) feet high or less include subterranean storage or parking, then this ordinance shall apply only to the subterranean areas.

4. One and two family dwellings and townhouses

510.2 Emergency responder radio coverage in existing buildings. Existing buildings shall be provided with *approved* radio coverage for emergency responders as required in BCC 23.11.1103.2

510.3.1 Construction Permit required. A construction permit for the installation of or modification to emergency responder radio coverage systems and related equipment is required as specified in Section 105.7.5. Maintenance performed in accordance with this

code is not considered a modification and does not require a permit.

510.3.2 Operational permit. An operational permit is required to operate an in building radio system in accordance with BCC 23.11.105.6.47.

510.4 Technical requirements. Systems, components, and equipment required to provide emergency responder radio coverage system shall comply with Sections 510.4.1 through 510.4.2.5

510.4.1 Radio signal strength. The building shall be considered to have acceptable emergency responder radio coverage when signal strength measurements in 95% of all areas of the building and 99% in elevators (measured at the primary recall floor), stair shafts and Fire Command Centers meet the signal strength requirements in Sections 510.4.1.1 and 510.4.1.2

510.4.1.1 Minimum signal strength into the building. A minimum signal strength of -95 dBm shall be receivable within the building.

510.4.1.2. Minimum signal strength out of the building. A minimum signal strength of -95 dBm shall be received by the agency's radio system when transmitted from within the building.

510.4.2 System Design. The emergency responder radio coverage system shall be designed in accordance with Sections 510.4.2.1 through 510.4.2.5

510.4.2.1 Amplification systems allowed. Buildings and structures which cannot support the required level of radio coverage shall be equipped:

1. A radiating cable system and/or
2. An internal multiple antenna system with FCC certificated bi-directional 800 MHz amplifiers or

3. Systems otherwise approved by the city radio system manager in order to achieve the required adequate radio coverage
4. 510.4.2.2 Technical criteria

510.4.2.2.1 Frequency range. The frequency range which must be supported shall be 806 MHz to 824 MHz and 851 MHz to 869 MHz and such other frequencies as determined by the Regional Radio System operator in all areas of the building.

510.4.2.3 Power supply. Power supplies shall conform with NFPA 72, Section 10.5 (Power Supplies).

510.4.2.3.1 Secondary Power. If any part of the installed system or systems contains an electrically powered component, the installed system or systems shall be provided with an independent battery system or an emergency generator capable of operating for a period of at least twenty four (24) hours without external power input. The battery system shall automatically charge in the presence of external power input.

510.4.2.4 Signal Booster Requirements. If used, signal boosters shall meet the following requirements:

1. All signal booster components shall be contained in a NEMA4-type waterproof cabinet.
2. The battery system shall be contained in a NEMA4-type waterproof cabinet.
3. The system shall include automatic alarming of malfunctions of the signal booster and battery system. Any resulting trouble alarm shall be automatically transmitted to an approved central station or proprietary supervising station as defined in NFPA 72 or, when approved by the fire code official, shall sound an audible signal at a constantly attended location.
4. Equipment shall have FCC certification prior to installation.

5. Signal boosters must be equipped with filters that reject adjacent frequencies in addition to the multi-band pass filters.

510.5 Installation requirements. The installation of the public safety radio coverage system shall be in accordance with Sections 510.5.1 through 510.5.5

510.5.1 Approval Prior to Installation. No amplification system capable of operating on frequencies used by the Regional 800 MHz Radio System shall be installed without prior coordination and approval of the radio system licensee (The Eastside Public Safety Communications Agency – www.epsca.com – (425) 556-2515) and any such system must comply with any standards adopted by the King County Regional Communications Board.

510.5.2 Minimum Qualifications of personnel. The system designer, lead installation personnel and personnel conducting radio system tests shall be qualified to perform the work.

Design documents and all tests shall be documented and signed by a person in possession of a current FCC General Radio Telephone Operator License and a certificate or certification issued by the:

1. Associated Public Safety Communications Officials International (APCO), or
2. National Association of Business and Education Radio (NABER) or
3. Personal Communications Industry Association (PCIA), or
4. Manufacturer of the equipment being installed.

510.5.3 Acceptance Test procedure. Acceptance testing for Emergency responder radio amplification system is required, upon completion of installation. It is the building owner's responsibility to have the radio system tested by qualified

personnel to ensure a minimum of 95% two-way coverage on each floor of the building.

A report shall be submitted to the Bellevue Fire Department at the conclusion of acceptance testing containing a floor plan and the signal strengths at each location tested and other relevant information. A representative of the Bellevue Fire Department may oversee the acceptance test. Acceptance testing is also required whenever changes occur to the building that would materially change the original field performance test. The test procedure shall be conducted as follows:

1. Each floor of the building shall be divided into a grid of approximately forty (40) equal areas.
2. Testing shall use a two (2) watt, portable transceiver with speaker/microphone and flexible antenna (or any calibrated device which will produce signal levels useable by the prescribed portable radio). Field strength testing instruments must have been calibrated within one (1) year of the date of the acceptance test. Field strength testing instruments must be of the frequency selective type incorporating a flexible antenna similar to the ones used on the hand held transceivers. City Radio System Manager may designate alternate methods of measuring the signal level, which satisfy appropriate levels of public safety coverage.
3. A maximum of two (2) nonadjacent areas will be allowed to fail the test.
4. In the event that three (3) of the areas fail the test, the floor may be divided into eighty (80) equal areas in order to be more statistically accurate. In such event, a maximum of four (4) nonadjacent areas will be allowed to fail the test. After the eighty (80) area tests, if the system continues to fail, the building owner shall have the system altered to meet the 95% coverage requirement.
5. A spot located approximately in the center of a grid area will be selected for the test, then the radio will be keyed to verify two-way communication to and from the outside of the building through the Regional 800 MHz Radio System. Once the spot has been selected, prospecting for a better spot within the grid area is not permitted. The gain values of all amplifiers shall be measured and the results kept on file with the building owner so that the measurements can be verified each year during the annual tests. In the event that the measurement results become lost, the building owner will be required to rerun the acceptance test to reestablish the gain values.
6. The gain values of all amplifiers shall be measured and the test measurement results shall be kept on file with the building *owner* so that the measurements can be verified during annual tests. In the event that the measurement results become lost, the building *owner* shall be required to rerun the acceptance test to reestablish the gain values.
7. As part of the installation a spectrum analyzer or other suitable test equipment shall be utilized to ensure spurious oscillation s are not being generated by the subject signal booster. This test shall be conducted at time of installation and subsequent annual inspections.

Point of Information

While the foregoing implies manual measurement and recording, automated testing and recording is certainly permitted so long as a report can be produced documenting the signal strength (or average) in each test square.

510.11 Identification. Buildings equipped with an Emergency Responder

510.5.4 FCC compliance. The emergency responder radio coverage system installation and components shall also comply with all applicable federal regulations including, but not limited to, FCC 47 DFR Part 90.219.

510.5.5 Approval Prior to Occupancy. A Certificate of Occupancy will not be issued to any structure if the building fails to comply with BCC 23.11.510.

510.6 Maintenance. The emergency responder radio coverage system shall be maintained operational at all times in accordance with Sections 510.6.1 through 510.6.3.

510.6.1 Testing and proof of Compliance. The emergency responder radio coverage system shall be inspected and tested annually, or whenever structural changes occur to the building that would materially change the original field performance tests by a consultant approved by the Fire Code Official. The performance test shall include at minimum a floor plan and the signal strength in various locations of the building.

1. Testing shall consist of the following:
2. In-building coverage test as described in Section 510.5.3.
3. Signal boosters shall be tested to ensure that the gain is the same as it was upon initial installation and acceptance.
4. Backup batteries and power supplies shall be tested under load of a period of one hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.
5. All other active components shall be checked to verify operation within the manufacturer's specifications.

6. At the conclusion of the testing, a report, which shall verify compliance with Section 510.5.3, shall be submitted to the fire code official not later than January 30th of each year.

510.6.2 Additional frequencies and change of frequencies. The building owner shall modify or expand the frequency range at his or her expense in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC. Prior approval of a public safety radio coverage system on previous frequencies does not exempt this requirement.

Point of Information

System designers should be aware that re-banding (Nextel) is currently well along making available the entire 800 MHz spectrum as well as portions of the 700 MHz band for public safety and equipment must be capable of supporting these and other spectrum bands. See www.FCC.gov for additional information.

510.6.3 Identification. Radio Coverage system shall be identified by a sign located on or near the Fire Alarm Control Panel stating "This building is equipped with an Emergency Responder Radio Coverage System"

510.6.4 Field Testing. Police and Fire Personnel shall at any time have the right to enter onto the property to conduct its own field-testing to be certain that the required level of radio coverage is present.

604.2.14.1 Standby power. A standby power system shall be provided. Where the standby system is a generator set inside a building, the system shall be located in a separate room enclosed with 2-hour fire barriers or horizontal assemblies constructed in accordance with the International Building Code, or both, and shall be in a separate room from the normal power source including transformers and distribution equipment. Power distribution from the emergency source to the emergency transfer switch shall be by an independent route from the normal power source. System supervision with manual start and transfer features shall be provided at the fire command center. Standby power shall be provided for elevators in accordance with IBC Section 3003. Fuel-fired standby power generator sets and associated fuel storage, including optional landlord- or tenant-owned generator sets, located more than 75 feet above the lowest level of Fire Department vehicle access, requires the approval of the fire code official.

604.2.15.1 Standby power. A standby power system complying with IBC Table 403 (1) and the National Electrical Code (NEC) as Legally Required Standby Power, except as designated in Table 403(1) shall be provided.

If the standby system is a generator set inside a building, the system shall be located in a separate room enclosed with 2-hour fire barriers constructed in accordance with IBC Section 706 or horizontal assemblies constructed in accordance with IBC Section 711, or both, and shall be in a separate room from the normal power source including transformers and distribution equipment. Power distribution from the emergency source to the emergency transfer switch shall be by an independent route from the normal power source. System supervision with manual start and transfer features shall be provided at the fire command center.

Fuel-fired standby power generator sets and associated fuel storage, including optional landlord- or tenant-owned generator sets, located at a floor level more than 30 feet below the lowest level of exit discharge requires the approval of the Fire Code Official.

604.2.15.1.2 Pickup Time. – This section is not adopted (reference BCC 23.11.100)

[B] 604.2.15.1.1 Standby power loads and pickup time. Standby power loads & Pickup Time shall be as identified in IBC Table 403 (1).

604.2.15.2 Emergency power systems. An emergency power system complying with IBC Table 403 (1) and the National Electrical Code (NEC) as Emergency Standby Power, except as designated in IBC Table 403(1) shall be provided as specified in Section 604.2.15.1 for emergency power loads. Fire pumps shall comply with NEC Article 695 and NFPA 20.

If the emergency power system is a generator set inside a building, the system shall be located in a separate room enclosed with 2-hour fire barriers constructed in accordance with IBC Section 706 or horizontal assemblies constructed in accordance with IBC Section 711, or both, and shall be in a separate room from the normal power source including transformers and distribution equipment. Power distribution from the emergency source to the emergency transfer switch shall be by an independent route from the normal power source. System supervision with manual start and transfer features shall be provided at the fire command center.

Fuel-fired standby power generator sets and associated fuel storage, including optional landlord- or tenant-owned generator sets, located at a floor level more than 30 feet below the lowest level of exit discharge requires the approval of the Fire Code Official.

604.2.15.2.1 Emergency power loads. Emergency power loads shall be as identified in IBC Table 403 (1) as amended by Bellevue Municipal Code Section 23.10.403.

605.3 Working space and clearance. A working space of not less than 30 inches (762 mm) in width, 36 inches (914 m) in depth and 78 inches (1,981 mm) in height shall be provided in front of electrical service equipment. Where the electrical service equipment is wider than 30 inches (762 mm), the working space shall not be less than the width of the equipment. No storage of any materials shall be located within the designated working space.

Exceptions:

1. Where other dimensions are required or allowed by the electrical code as adopted by the City.
2. Access openings into attics or under-floor areas which provide a minimum clear opening of 22 inches (559 mm) by 30 inches (762 mm).

605.4 Multiplug adapters. Multiplug adapters, such as cube adapters, unfused plug strips or any other device not complying with the electrical code as adopted by the City shall be prohibited.

605.9 Temporary wiring. Temporary wiring for electrical power and lighting installations is allowed for a period not to exceed 90 days. Temporary wiring methods shall meet the applicable provisions of the electrical code as adopted by the City.

[WS] 605.11 Solar photovoltaic power systems.
This section is not adopted.

[WS] Denotes Washington State Amendment

Effective July 1, 2013

(Insert facing page 77)
(remove WS Amendment)

606.16 Electrical equipment. Where refrigerants of Groups A2, A3, B2, and B3, as defined in the International Mechanical Code, are used, refrigeration machinery rooms shall conform to the Class I, Division 2 hazardous location classification requirement of the electrical code as adopted by the City.

901.7 Systems out of service. Where a fire protection system is out of service, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service.

Where utilized, fire watches shall be provided with at least one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

901.11 Preventable responses to fire alarms-scope. This section shall apply to activation of a fire alarm system resulting in responses of fire apparatus due to either direct transmission of the alarm to a monitoring station or telephone report of fire alarm activation caused by any of the following:

1. Improper type, installation, sensitivity, or maintenance of automatic detectors;
2. Improper installation (including unapproved or incompatible components) or maintenance of fire alarm systems including systems with unapparent reasons for repetitious alarms;
3. Erroneous transmission of an alarm including the reporting of trouble signals by fire alarm monitoring companies;
4. Work on a fire alarm system or automatic extinguishing system connected to an alarm system when reasonable steps were not taken to prevent reporting of an alarm to the fire department;
5. Fire drills or tests of alarm or extinguishing systems when reasonable steps were not taken to prevent reporting of an alarm to the fire department;
6. Work including painting, welding, cleaning, cooking, dust producing or other activities which could activate a fire alarm detector;
7. Smoke or fumes resulting from closed fireplace dampers, cooking activities, smoking of tobacco products, etc., including opening a door to a corridor equipped with detectors for the purpose of ventilating such smoke or fumes.

Exception: This section shall not apply to activation of a fire alarm system resulting from the following:

1. Any actual fire, explosion or overheating or other situation that could have resulted in a fire;
2. Any manual activation of an alarm where it was believed that a fire or any other

emergency requiring response of emergency personnel existed;

3. Malicious manual activation or unlawful tampering with a fire alarm system;
4. Accidental striking of an alarm box, detector, circuitry, panel or other components of an alarm system or accidental breakage or discharge of a sprinkler system or other fire extinguishing system;
5. Accidental breakage or leak of any system that releases steam, heat, gases, water or vapors which might activate a detector;
6. Earthquake, lightning or natural occurrences that result in movement or flooding of a building;
7. Work on telephone lines or central office equipment.

901.11.1 Fees.

1. Exempt Alarms.

- a. The first preventable fire department response to fire alarms from any one system during a calendar year shall be exempt except that there shall be no exempt responses to alarms caused by alarm system monitoring companies or companies performing work on fire alarm or fire extinguishing systems.
- b. For newly installed alarm systems, the first five preventable responses to fire alarms from any one system or all preventable responses within 30 days of the first such alarm, whichever occurs first, are exempt.

2. Nonexempt Fire Department Responses to Fire Alarms.

- a. A fee of \$150.00 shall be charged for the first nonexempt preventable fire department response to a fire alarm during a calendar year from any one system.
- b. A fee of \$200.00 shall be charged for all subsequent nonexempt preventable fire

department responses to a fire alarm from any system during a calendar year.

hereafter amended in this chapter and BCC 1.18 as now or hereafter amended.

901.11.1.1 Late Charges. All balances 30 days or greater past the invoice date are assessed a late charge of 1%, with a minimum charge of \$25 per month.

Point of Information

Preventable responses beyond five in a calendar year are subject to the full cost of the response. See BMC 23.11.102 for further information.

901.11.2. Responsibilities.

1. The owner of the alarm system or subscriber of an alarm service shall be responsible for all preventable fire department responses resulting from activation of a fire alarm system including those caused by tenants or any other occupant of the building or occupancy, except that fire alarm monitoring companies shall be responsible for their erroneous transmission of alarms and companies performing work on fire alarm or extinguishing systems shall be responsible when such work results in a fire department response.
2. When a preventable fire department response to a fire alarm has occurred, the responsible party shall, within 30 days, make a written report to the fire chief on forms provided by the fire department, stating the reasons for such alarm and the corrective action taken to prevent recurrence.
3. The fire code official's determination that a preventable fire department response has occurred shall be made in writing and shall constitute the final decision of the City. Any person aggrieved by this determination may file an appeal with the Hearing Examiner within thirty (30) days. The Hearing Examiner shall have jurisdiction over such appeal in accordance with the provisions of Section 108 of the International Fire Code as now or

902.2 Definitions Added:

High-rise Building. Buildings having occupied floors or occupied roof located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

Water Supply. The source and delivery system supplying the required flow (gpm) and pressure (psi) to a sprinkler system or other fire protection system/equipment.

903.2 Where required. *Approved automatic sprinkler systems* in new buildings and structures shall be provided in the locations described in this section.

[WS] 903.2.1.6 Nightclub. An automatic sprinkler system shall be provided throughout Group A-2 nightclubs as defined in this code.

[WS] 903.2.3 Group E. An automatic sprinkler system shall be provided for Group E occupancies.

Exceptions:

1. Portable school classrooms with an occupant load of 50 or less calculated in accordance with Table 1004.1.2, provided that the aggregate area of any cluster of portable classrooms does not exceed 5,000 square feet (1465 m²); and clusters of portable school classrooms shall be separated as required by the building code.
2. Group E occupancies with an occupant load of 50 or less, calculated in accordance with Table 1004.1.2.

[WS] Denotes Washington State Amendment

903.2.11 All occupancies. In all occupancies other than Group U, an *automatic sprinkler system* shall be installed for building design or hazards in the locations set forth in Section 903.2.11.1 through 903.2.11.7.

903.2.11.1 Stories and basements without openings. An *automatic sprinkler system* shall be installed throughout all stories, including basements, of all buildings where the floor area exceeds 1,500 square feet (139.4 m²) and where there is not provided at least one of the following types of *exterior wall openings*:

1. Openings below grade that lead directly to ground level by an exterior *stairway* complying with Section 1009 or an outside ramp complying with Section 1010. Openings shall be located in each 50 linear feet (15,240 mm), or fraction thereof, of exterior wall in the story on at least one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm).
2. Openings entirely above the adjoining ground level totaling at least 20 square feet (1.86 m²) in each 50 linear feet (15,240 mm), or fraction thereof, of exterior wall in the story on at least one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm). The height of the bottom of the clear opening shall not exceed 44 inches (1118 mm) measured from the floor.

903.2.11.1.1 Opening dimensions and access.

Openings shall have a minimum dimension of not less than 30 inches (762 mm). Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner

that firefighting or rescue cannot be accomplished from the exterior.

903.2.11.1.2 Openings on one side only. Where openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22,860 mm) from such openings, the story shall be equipped throughout with an *approved automatic sprinkler system* or openings as specified above shall be provided on at least two sides of the story.

903.2.11.1.3 Basements. Where any portion of a basement is located more than 75 feet (22,860 mm) from openings required by Section 903.2.11.1, or where new walls, partitions or other obstructions are installed that increase the exit access travel distance to more than 75 feet, the basement shall be equipped throughout with an *approved automatic sprinkler system*.

903.2.11.2 Rubbish and linen chutes. An automatic sprinkler system shall be installed at the top of rubbish and linen chutes and in their terminal rooms. Chutes shall have additional sprinkler heads installed at alternate floors and at the lowest intake. Where a rubbish chute extends through a building more than one floor below the lowest intake, the extension shall have sprinklers installed that are recessed from the drop area of the chute and protected from freezing in accordance with Section 903.3.1.1. Such sprinklers shall be installed at alternate floors beginning with the second level below the last intake and ending with the floor above the discharge. Chute sprinklers shall be accessible for servicing.

903.2.11.3 Buildings 55 feet or more in height.

An automatic sprinkler system shall be installed throughout buildings with a floor level having an occupant load of 30 or more that is located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access.

903.2.11.4 Ducts conveying hazardous

exhausts. Where required by the International Mechanical Code, automatic sprinklers shall be provided in ducts conveying hazardous exhaust, flammable or combustible materials.

Exception: Ducts where the largest cross-sectional diameter of the duct is less than 10 inches (254 mm).

903.2.11.5 Commercial cooking operations.

An automatic sprinkler system shall be installed in a commercial kitchen exhaust hood and duct system where an automatic sprinkler system is used to comply with Section 904.

903.2.11.6 Other required suppression systems.

In addition to the requirements of Section 903.2, the provisions indicated in Table 903.2.11.6 also require the installation of a fire suppression system for certain buildings and areas.

903.2.11.7 Buildings exceeding 10,000 square

feet. Notwithstanding any provision of the International Building Code or International Fire Code, as such codes are adopted by the City, throughout all buildings where the total floor area, including basements, exceeds 10,000 square feet. For purposes of this paragraph, portions of buildings separated by one or more fire walls will not be considered a separate building. Existing buildings shall comply with this section when an addition is made to the building and the total floor area, including the basements, or the existing building and the addition combined exceeds 10,000 square feet, or when the value of a structural

alteration or repair of an existing building 10,000 square feet in area or greater exceeds 50 percent of the assessed valuation of such existing building, or exceeds 50 percent of the recognized replacement cost of the structure, without consideration of depreciation, as determined under the Marshall Valuation Service Cost Handbook, whichever is greater.

903.3.1 Standards. Sprinkler systems shall be designed and installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3 and other chapters of this code, as applicable. In addition sprinkler systems shall be designed with a buffer to account for water system fluctuations to include a low reservoir condition. Such buffer shall be 5 p.s.i. for static pressures less than 50 p.s.i. and 10 p.s.i. for static pressures above 50 p.s.i.

Permit applicants shall independently verify site specific static pressure:

- Prior to initiating sprinkler system.
- Prior to installing any sprinkler piping, including the underground supply.
- Prior to requesting an cover inspections.

903.3.1.1.1 Exempt locations. Automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from any room merely because it is damp, of fire-resistance rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard, when approved by the fire code official.
2. Any room or space where sprinklers are considered undesirable because of the nature

of the contents, when approved by the fire code official.

3. In rooms or areas that are of noncombustible construction with wholly noncombustible contents.
4. Fire service access elevator machine rooms and machinery spaces.
5. Machine rooms and machinery spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the International Building Code

903.3.1.1.2 High rise building sprinkler system design. Combination standpipe/sprinkler risers using 6 in. pipe minimum, shall be used. Shut-off valves and water-flow devices shall be provided on each floor at the sprinkler system connection to each standpipe. Two four-way fire department connections serving the combination system shall be provided on separate streets well separated from each other. At least one of the fire department connections shall be connected to the riser above a riser isolation valve. Dry pipe sprinkler systems serving parking garages may use one separate two-way fire department connection. The dry pipe sprinkler system shall be supplied by the on-site water tank.

903.3.1.1.3 Seismic Coefficient. The coefficient C_p for seismic bracing design calculations in accordance with NFPA 13 shall either use a value of 0.70, or shall use a value based on site specific USGS data.

903.3.3 Obstructed locations. Automatic sprinklers shall be installed in accordance with NFPA 13 obstruction criteria and the listing requirements of the sprinkler head. Automatic sprinklers shall be installed in or under covered kiosks, displays, booths, concession stands, or equipment that exceeds 4 feet (1219 mm) in width and depth, and for all multi-level exhibit booths. Not less than a 3-foot (914 mm) clearance shall be maintained between automatic sprinklers and the top of piles of combustible fibers.

Exception: Kitchen equipment under exhaust hoods protected with a fire-extinguishing system in accordance with Section 904.

903.3.5.2 Secondary water source. A secondary on-site water source shall be provided for *high-rise building* as follows:

1. High-rise buildings containing R or B occupancy only shall be provided with a net useable volume of 15,000 gallons.
2. High-rise buildings containing an S-2 occupancy shall be provided with a net useable volume of 40,000 gallons.
3. High-rise buildings containing an M occupancy shall be provided with a net useable volume of 50,000 gallons.
4. Multi high-rise complexes sharing a common secondary water source shall be provided with a net useable volume calculated by combining the highest demand of number 2 or 3 above, with number 1 above. Only one parking/retail area and 2 high-rise buildings may share a common secondary water source.

An acceptable alternative to items 1 through 4 above, is to prove a calculated net useable volume capable of meeting the hydraulically calculated sprinkler demand, including the total (combined inside and outside) hose stream requirement, as per NFPA 13. The duration of the calculated source shall have a duration of not less than 30 minutes for buildings with light hazard occupancies only and a 60 minute duration for building with ordinary hazard occupancies as defined by NFPA 13.

Exception: Existing building, including those undergoing substantial renovation.

903.4.3 Floor control valves. *Approved* supervised indicating control valves shall be provided at the point of connection to the riser on each floor. The floor control valves shall be located within 6' of floors or landings unless chains or other approved devices are readily available.

905.3.1 Height. Class I standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm) above the lowest level of the fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet (9144 mm) below the highest level of fire department vehicle access.

Exceptions:

1. In determining the lowest level of fire department vehicle access, it shall not be required to consider:
 - 1.1 Recessed loading docks for four vehicles or less, and
 - 1.2 Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.



905.3.4 Stages. This section is not adopted (reference BCC 23.11.100).

905.3.4.1 Hose and cabinet. This section is not adopted (reference BCC 23.11.100).

905.3.9 High Rise Building Standpipes.

Standpipe risers shall be combination standpipe/sprinkler risers using a minimum pipe size of 6 inch. One 2-1/2 inch hose connection shall be provided on every intermediate floor level landing in every required stairway and elsewhere as required by NFPA 14. Where, and only where, static or residual water pressures at any hose outlet exceeds 175 psi (1207 kPa), approved pressure-regulating devices shall be installed to limit the pressure to 150 psi (1207 kPa). Such devices shall be adjusted to provide 150 psi (1207 kPa), or as close to that pressure as the adjustment will permit while flowing 300 gpm, without exceeding 175 psi (1207 kPa). The pressure on the inlet side of the pressure-regulating device shall not exceed the rated working pressure of the device. An additional non-regulated hose connection located directly

below the PRV or an equally sized bypass around the pressure regulating device with a normally closed control valve shall be provided at each reduced pressure connection. Signage in accordance with NFPA 14 and Section 912.4 shall be provided.

Point of Information

Additional flow and pressure requirements are contained in NFPA 14. Designers should be cognizant of space considerations within stair shafts and additional signage needed for the PRV by-pass control valves. For city wide uniformity, the City of Bellevue desires the PRV settings to be such that the required flow is available at 150 psi. However, a range of up to 175 psi is provided to allow for design flexibility.

905.4 Location of Class I standpipe hose

connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required stairway, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors. Where stairs are required to provide roof access, the standpipe roof connections shall be located adjacent to the stair opening on the roof.
2. On each side of the wall adjacent to the exit opening of a horizontal exit.

Exceptions:

1. Where floor areas adjacent to a horizontal *exit* are reachable from *exit stairway* hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the horizontal *exit*.
2. When the *Fire Code Official* determines that standpipe connection is not needed.

3. In every *exit* passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an *exit* passageway are reachable from exit stairway hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the *exit* passageway to other areas of the building.

4. In covered and open mall buildings, adjacent to each exterior public entrance to the mall, adjacent to each entrance from an exit passageway or exit corridor to the mall, at each intermediate landing within required enclosed stairways, and at other locations as necessary so that the distance to reach all portions of a tenant space does not exceed 200 feet (60 960 mm) from a hose connection.

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), at least one standpipe shall be provided with a 2 ½ in. hose connection located on the roof. Additional hose connections shall be provided so that all portions of the roof are within 200 feet of hose travel distance from a standpipe hose connection. The hose connection(s) shall be at least 10 feet (3048 mm) from the roof edge, skylight, light well or other similar openings, unless protected by a 42-inch-high (1067 mm) guardrail or equivalent. All roof hose connections shall be arranged to be operable without entering the building. Roof connections in high-rise buildings are allowed to be located at the highest landing of a stairway with stair access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) of hose travel distance from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60 960 mm) of hose travel distance from a hose connection, additional hose connections shall be provided in vertical exit enclosures or protected locations that are accessed through protected enclosures. The protected enclosure shall be a corridor constructed as a smoke barrier from the exit enclosure to the standpipe connection.

Exception: Hose connections in parking garages must be located in vertical exit enclosures, protected locations, immediately adjacent to exterior exit doors, loading docks or other areas as approved by the fire code official. Subject to the approval of the fire code official the travel distance may also be increased to a maximum distance of 240 feet

Point of Information

Chapter 10 of this code outlines the requirements for stairways to the roof and roof access. This section (905.4), identifies the locations of standpipes and hose connections, but does not dictate the need for additional stairways to the roof or roof access.

905.8 Dry standpipes. Dry standpipes when *approved* by the *fire code official* may be installed in other than high-rise buildings.

907.1 General. This section covers the application, installation, performance and maintenance of fire alarm systems and their components in new and existing building and structures. The requirements of Section 907.2 are applicable to new buildings and structures and new fire alarm systems including replacement of existing fire alarm control panels being installed in existing structures. The requirements of Section 907.9 are applicable to existing buildings and structures.

For the purpose of this section, fire barriers shall not be considered to create a separate building.

Building required by this section to be provided with a fire alarm system shall be provided with a single fire alarm system unless otherwise approved by the *fire code official*.

907.2.7.1 Occupant Notification. This section is not adopted (reference BCC 23.11.100)

907.2.13.1.1 Area smoke detection. Area smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section, other than duct smoke detectors, shall activate the emergency voice/alarm communication system in accordance with Section 907.5.2.2. In addition to smoke detectors required by Sections 907.2.1 through 907.2.10, smoke detectors (Where such locations are within unconditioned spaces, other devices may be installed in accordance with 907.4.3) shall be located as follows:

1. In each mechanical equipment, electrical, transformer, telephone equipment or similar room which is not provided with sprinkler protection.
2. In each elevator machine room and in elevator lobbies.
3. Within 5 feet (1524 mm) of doors opening into stairways that are smoke proof enclosures, or are pressurized stairways.

907.2.13.2 Fire department communication system. An *approved* two-way, fire department communication system designed and installed in accordance with NFPA 72 shall be provided for fire department use. It shall operate between a *fire command center* complying with Section 508, elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, areas of refuge and inside enclosed *exit stairways*. The fire department communication device shall be provided at each floor level within the enclosed *exit stairway*.

907.2.18.1 Smoke detectors. A minimum of one smoke detector (Where such locations are within unconditioned spaces, other devices may be installed in accordance with 907.4.3.) listed for the intended purpose shall be installed in the following areas:

1. Electrical, Non-Utility owned transformer vault rooms, telephone equipment, elevator machine or similar rooms.
2. Elevator lobbies.
3. The main return and exhaust air plenum of each air-conditioning system serving more than one story and located in a serviceable area downstream of the last duct inlet.
4. Each connection to a vertical duct or riser serving two or more floors from return air ducts or plenums of heating, ventilating and air-conditioning systems, except that in Group R occupancies, a listed smoke detector is allowed to be used in each return-air riser carrying not more than 5,000 cfm (2.4 m³/s) and serving not more than 10 air inlet openings.
5. Within 5 ft. of doors opening into stairways that are smoke proof enclosures, or that are pressurized stairways.

907.5 Occupant notification systems.

A fire alarm system shall annunciate at the fire alarm control unit and shall initiate occupant notification upon activation, in accordance with Sections 907.5.1 through 907.5.2.3.4. Where a fire alarm system is required by another section of this code, it shall be activated by:

1. Automatic fire detectors.
2. Automatic sprinkler system waterflow devices.
3. Manual fire alarm boxes.
4. Automatic fire-extinguishing systems.

907.5.2.1.1 - Average sound pressure. The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupiable space within the building, or in the case of a partial alarm system, throughout the space that is being provided with the fire alarm system. The minimum sound pressure levels shall be: 75 dBA in occupancies in Groups R and I-1; 90 dBA in mechanical equipment rooms; and 60 dBA in other occupancies. In assembly occupancies with high sound levels such as nightclubs, bars, theaters, auditoriums, sanctuaries, etc. an interface shall be provided between the fire alarm system and the noise source to eliminate the noise source upon activation of the fire alarm system.

Exception: Private mode signaling in accordance with NFPA 72 shall be allowed in areas of group I-2 and I -3 occupancies where occupants are not expected to self-evacuate.

907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector,

sprinkler water flow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Exit stairways.
3. Each floor.
4. Areas of refuge as defined in Section 1002.1.

Exception: In Group I-1 and I-2 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

907.5.2.2.1 Manual override. A manual override for emergency voice communication shall be provided on a selective and all-call basis for all paging zones.

907.5.2.2.2 Live voice messages. The emergency voice/alarm communication system shall also have the capability to broadcast live voice messages by paging zones on a selective and all-call basis.

Point of Information

See Emergency Voice Alarm public information sheet [F-43](#) for detailed messaging requirements

907.5.2.2.3 Alternate uses. The emergency voice/alarm communication system shall be allowed to be used for other announcements, provided the manual fire alarm use takes precedence over any other use.

907.5.2.2.4 Emergency voice/alarm communication captions.

Where stadiums, arenas and grandstands are required to caption audible public announcements in accordance with Section 1108.2.7.3 of the International Building Code, the emergency/voice alarm communication system shall also be captioned. Prerecorded or live emergency captions shall be from an approved location constantly attended by personnel trained to respond to an emergency.

907.5.2.2.5 Emergency power. Emergency voice/alarm communications systems shall be provided with an approved emergency power source.

907.5.2.2.6 Phased Evacuation. All buildings more than 10 stories above grade plane shall utilize an approved phased evacuation plan

Exceptions:

1. When an additional exit stairway meeting the requirements of Sections IBC 1009 and 1022 are provided in addition to the minimum number of exits required by Section IBC 1021.1
2. Where the width of each required exit stairway is as specified in Section 1009.1 is increased by not less than 24" of additional width.
3. Where occupant self-evacuation elevators in accordance with IBC Section 3008 have been installed.
4. Where full tenant evacuation can be demonstrated to be accomplished in less than 7 minutes.

Point of Information

These provisions are intended to facilitate the simultaneous building evacuation and firefighter response into the building

907.5.2.3 Visible alarms. Visible alarm notification appliances shall be provided in accordance with Sections 907.5.2.3.1 through 907.5.2.3.4.

Exceptions:

1. Visible alarm notification appliances are not required in alterations, except where an existing fire alarm system is replaced, or a new fire alarm system is installed.
2. Visible alarm notification appliances shall not be required in exits as defined in Chapter 2.
3. Visible alarm notification appliances shall not be required in elevator cars.

907.6.3.1 Annunciator panel. All fire alarm systems in buildings without a fire command center shall be provided with an annunciator panel (or the main fire alarm control panel) located inside the building at the main addressed building entrance.

Graphic annunciators, when provided, shall be mounted to maintain the viewer's directional orientation. The visual zone indication on the annunciator panel shall lock in until the system is reset and shall not be canceled by the operation of an audible-alarm silencing switch. Alarm panels and annunciators shall not be installed where they would obstruct exiting. The required exit width plus 12 inches shall be provided when the panel is located in a means of egress. Alarm panels shall not be installed in an exit enclosure providing the sole exit from any space.

[WS] 908.7 Carbon monoxide alarms. Group I or Group R occupancies shall be provided with single station carbon monoxide alarms installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units or sleeping units and on each level of the dwelling. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720-2012 and the manufacturer's instructions.

Exceptions:

1. For other than R-2 occupancies, the building does not contain a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; or
2. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, and DSHS licensed boarding home and residential treatment facility occupancies which do not themselves contain a fuel-burning appliance, or a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that:
 - a. The sleeping unit or dwelling unit is not adjacent to any room which contains a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and
 - b. The sleeping unit or dwelling unit is not connected by duct work or ventilation shafts with a supply or return register in the same room to any room containing a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and
 - c. The building is provided with a common area carbon monoxide detection system.
3. An open parking garage, as defined in Chapter 2 of the International Building Code, or enclosed parking garage ventilated in accordance with Section 404 of the International Mechanical Code shall not be considered an attached garage.

[WS] 908.7.1 Carbon monoxide detection systems. Carbon monoxide detection systems, that

Effective July 1, 2013

include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720-2012 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075.

909.1 Scope and purpose. This section applies to mechanical or passive smoke control systems when they are required by other provisions of this code. The purpose of this section is to establish minimum requirements for the design, installation and acceptance testing of smoke control systems that are intended to provide a tenable environment for the evacuation or relocation of occupants. These provisions are not intended for the preservation of contents, or the timely restoration of operations. Smoke control systems regulated by this section serve a different purpose than the smoke- and heat-venting provisions found in Section 910. Mechanical smoke control systems shall not be considered exhaust systems under Chapter 5 of the *International Mechanical Code*.

[WS] Denotes Washington State Amendments

909.4.6. Duration of operation. All portions of active or passive smoke control systems shall be capable of continued operation after detection of the fire event for a period of not less than either 20 minutes or 1.5 times the calculated egress time, whichever is less, except that for smoke control in high-rise buildings, the emergency generator shall have fuel capacity for no less than that time stipulated in International Building Code Table 403(1), and in non-high-rise buildings, the emergency generator shall have fuel capacity for no less than 2 hours.

909.10.2 Ducts. Duct materials, including shafts acting as ducts and joints shall be capable of withstanding the probable temperatures and pressures to which they are exposed as determined in accordance with Section 909.10.1. Ducts shall be constructed and supported in accordance with the International Mechanical Code. Ducts shall be leak tested to 1.5 times the maximum design pressure in accordance with nationally accepted practices. Measured leakage shall not exceed 5 percent of design flow. Results of such testing shall be a part of the documentation procedure. Ducts shall be supported directly from fire resistance-rated structural elements of the building by substantial, noncombustible supports.

Exception: Flexible connections (for the purpose of vibration isolation) complying with the International Mechanical Code and which are constructed of *approved* fire-resistance-rated materials.

909.10.3 Equipment, inlets and outlets. Supply air shall be taken directly from an outside, uncontaminated source located a minimum distance of 20 feet from any air exhaust system or outlet so as to minimize the potential for introducing smoke or flame into the building.

909.11 Power systems. The smoke control system shall be supplied with two sources of power. Primary power shall be from the normal building power system. Secondary power shall be from an *approved* standby source complying with NFPA 70 (National Electrical Code). The standby power source and its transfer switches shall be in a separate room from the normal power transformers and switch gears, and ventilated directly to and from the exterior. The room shall be completely enclosed in not less than 1-hour fire barriers constructed in accordance with Section 707, or 1-hour horizontal assemblies constructed in accordance with Section 711, or both, except 2-hour fire-resistance construction shall be required for high-rise and underground buildings per Sections 403 and 405 respectively. Power distribution from the two sources shall be by independent routes to the room containing the automatic transfer switch(s). Independent routes shall mean either a minimum 1-hour fire-resistance separation, or a physical distance of not less than 50 feet. Transfer to full standby power shall be automatic and shall take place within the maximum time to energize loads, as specified in Table 403(1). The systems shall comply with NFPA 70 (National Electrical Code).

909.17 System response time. Smoke-control system activation shall be initiated immediately after receipt of an appropriate automatic or manual activation command. Smoke control systems shall activate individual components (such as dampers and fans) in the sequence necessary to prevent physical damage to the fans, dampers, ducts and other equipment. For purposes of smoke control, the fire-fighter's smoke control panel response time shall be the same for automatic or manual smoke control action initiated from any other building control point. The total response time, including that necessary for detection, shut-down of operating equipment and smoke control system startup, shall allow for full operational mode to be achieved before the conditions in the space exceed the design smoke condition. Upon receipt of an alarm condition at the fire alarm control panel, fans, dampers and automatic doors shall have achieved their expected operating state and confirmation of proper operation shall be indicated at the smoke control panel within 60 seconds. Documentation shall be provided in the required final report.

909.18.8.3.2 Certificate of compliance. A

certificate of compliance shall be provided by the special inspector and responsible registered design professional certifying that the referenced property is in substantial compliance. The certificate shall identify the company, designer, special inspector that performed the testing, name, date and address of the property being tested. The following statement must also be included: "I have reviewed the report and by personal knowledge and on- site observation certify that the smoke control system is in substantial compliance with the approved design documents, and to the best of my understanding complies with requirements of the applicable codes as identified in the smoke control report."

912.4 Signs. A metal sign with raised letters at least 1 inch (25mm) in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes or fire pump connections. Such signs shall read: SPRINKLERS, STANDPIPES, COMBINED, DRY S/PIPES, DRY S/P & SPKRS, BOOST TO _____ (as specified by the *fire code official*) PSI, or TEST CONNECTION or a combination thereof as applicable.

Point of Information

Systems utilizing Pressure Reducing Valves (PRV's) must note the required boosted pressure at the Fire Department Connection, in order to overcome the PRV setting.

913.2 Protection against interruption of service.

The fire pump, driver, and controller shall be protected in accordance with NFPA 20 against possible interruption of service through damage caused by explosion, fire, flood, earthquake, rodents, insects, windstorm, freezing, vandalism and other adverse conditions.

913.2.1 Protection of fire pump rooms and

access. Rooms where fire pumps are located shall be separated from all other areas of the building in accordance with Section 913.2.1 of the International Building Code.

Fire pump rooms not directly accessible from the outside shall be accessible through an enclosed passageway from an enclosed stairway or exterior exit. The enclosed passageway shall have a fire-resistance rating not less than the fire-resistance rating of the fire pump room (See also, NFPA 20 Section 4.12.2.1.2).

914.2.1 Automatic sprinkler system. Covered and open mall building and buildings connected shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.1.1, which shall comply with the following:

1. The automatic sprinkler system shall be complete and operative throughout occupied space in the mall building prior to occupancy of any of the tenant spaces. Unoccupied tenant spaces shall be similarly protected unless provided with approved alternative protection.
2. Sprinkler protection for the mall of a covered mall building shall be independent from that provided for tenant spaces or anchors. Where tenant spaces are supplied by the same system, they shall be independently controlled.
3. Sprinkler protection for the tenant spaces of an open mall building shall be independent from that provided for anchor buildings.
4. Sprinkler protection shall be provided beneath exterior circulation balconies located adjacent to an open mall.
5. Where tenant spaces are supplied by the same system, they shall be independently controlled.

914.3.1 Automatic sprinkler system – High rise building. Buildings and structures shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and a secondary water supply where required by Section 903.3.5.2.

1009.16.1 Roof access. Where a stairway is provided to a roof, access to the roof shall be provided through a penthouse complying with Section 1509.2 of the International Building Code.

Exception: In buildings without an occupied roof, access to the roof shall be permitted to be a roof hatch or trap door not less than 16 square feet in area and having a minimum dimension of 3 feet.

[WS] 1010.1 Scope. The provisions of this section shall apply to ramps used as a component of a means of egress.

Exceptions:

1. Other than ramps that are part of the accessible routes providing access in accordance with Sections 1108.2 through 1108.2.4 and 1108.2.6, ramped aisles within assembly rooms or spaces shall conform with the provisions in Section 1028.11.
2. Curb ramps shall comply with ICC A117.1.
3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections 1010.4 through 1010.10 when they are not an accessible route serving accessible parking spaces or other required accessible elements.
4. In a parking garage where one accessible means of egress serving accessible parking spaces or other accessible elements is provided, a second accessible means of egress serving that area may include a vehicle ramp that does not comply with Sections 1010.5, 1010.6, and 1010.9. A landing complying with Sections 1010.7.1 and 1010.7.4 shall be provided at any change of direction in the accessible means of egress.

[WS] Denotes Washington State Amendment

1103.2 Emergency responder radio coverage in existing buildings.

Buildings constructed prior to the implementation of this code shall not be required to comply with the emergency responder radio coverage provisions except as follows:

1. Whenever an existing wired communication system cannot be repaired or is being replaced.
2. Buildings identified in Section 510.1 undergoing substantial alteration as determined by the Fire Code Official
3. When buildings, classes of buildings or specific occupancies do not have minimum radio coverage signal strength as identified in Section 510.4.1 and the Fire or Police Chief determines that lack of minimum signal strength poses an undue risk to emergency responders that cannot be reasonably mitigated by other means.

1103.8 Single- and multiple-station smoke alarms. Single- and multiple-station smoke alarms shall be installed in existing Group I-1 and R occupancies in accordance with Sections 1103.8.1 through 1103.8.3.

1103.8.1 Where required. Existing Group I-1 and R occupancies shall be provided with single-station smoke alarms in accordance with Section 907.2.11, except as provided in Sections 1103.8.2 and 1103.8.3.

Exception: Where smoke detectors connected to a fire alarm system have been installed as a substitute for smoke alarms.

**SECTION 1106
PREMISES IDENTIFICATION**

1106.1 Address Identification. Address Identification for existing buildings shall be in accordance with section 505.1 of this code.

[WS] denotes Washington State amendment

Effective July 1, 2013

[WS] 1103.9 Carbon monoxide alarms. Existing Group I or Group R occupancies shall be provided with single station carbon monoxide alarms in accordance with Section 908.7. An inspection will occur when alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720-2012 and the manufacturer's instructions.

Exceptions:

1. For other than R-2 occupancies, if the building does not contain a fuel-burning appliance, a fuel-burning fireplace, or an attached garage.
2. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, or electrical permits.
3. Installation, alteration or repairs of noncombustion plumbing or mechanical systems.
4. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, and DSHS licensed boarding home and residential treatment facility occupancies which do not themselves contain a fuel-burning appliance, a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that:
 - 4.1 The sleeping units or dwelling unit is not adjacent to any room which contains a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and

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(Remove Washington State Amendment)

- 4.2 The sleeping units or dwelling unit is not connected by duct work or ventilation shafts with a supply or return register in the same room to any room containing a fuel-burning appliance, a fuel-burning fireplace, or to an attached garage; and
- 4.3 The building is provided with a common area carbon monoxide detection system.
- 5. An open parking garage, as defined in the International Building Code, or enclosed parking garage ventilated in accordance with Section 404 of the International Mechanical Code shall not be considered an attached garage.

[WS] 1104.1 General. Means of egress in existing buildings shall comply with Section 1030 and 1104.2 through 4604.24.

Exception: Means of egress conforming to the requirements of the building code under which they were constructed and Section 1030 shall not be required to comply with 1104.2 through 1104.22 and 1104.24.

2306.2.3 Above-ground tanks located outside, above grade. Above-ground tanks shall not be used for the storage of Class I, II or IIIA liquid fuels except as provided by this section.

1. The storage of Class I and Class II liquids in above ground tanks outside of buildings is prohibited within the limits established by law as the limits of districts in which such storage is prohibited. Districts for which this prohibition applies include areas zoned as other than LI (Light Industrial) and GC (General Commercial) as defined in City of Bellevue Land Use Code and designated on the City's official zoning map.

2. Above-ground tanks used for outside, above-grade storage of Class I liquids shall be listed and labeled as protected above-ground tanks in accordance with UL 2085 and shall be in accordance with Chapter 57. Such tanks shall be located in accordance with Table 2306.2.3.

3. Above-ground tanks used for outside, above-grade storage of Class II or IIIA liquids shall be listed and labeled as protected above-ground tanks in accordance with UL 2085 and shall be installed in accordance with Chapter 57. Tank locations shall be in accordance with Table 2306.2.3.

Exception: Other above-ground tanks that comply with Chapter 57 where approved by the fire code official.

4. Tanks containing fuels shall not exceed 12,000 gallons (45 420 L) in individual capacity or 48,000 gallons (181 680 L) in aggregate capacity. Installations with the maximum allowable aggregate capacity shall be separated from other such installations by not less than 100 feet (30 480 mm).

5. Tanks located at farms, construction projects, or rural areas shall comply with Section 5706.2.

6. Above-ground tanks used for outside above-grade storage of Class IIIB liquid motor fuel shall be listed and labeled in accordance with UL 142 or listed and labeled as protected above-ground tanks in accordance with UL 2085 and shall be installed in accordance with Chapter 57. Tank locations shall be in accordance with Table 2306.2.

5003.9 - General safety precautions. General precautions for the safe storage, handling or care of hazardous materials shall be in accordance with Sections 5003.9.1 through 5003.9.11.

5003.9.11 - Manufactures Limitations. The storage and use of hazardous materials shall not exceed the manufacturer's limitations on shelf life and any other restrictions on use.

[WS] 5601.1 Scope. The provisions of this chapter shall govern the possession, manufacture, storage, handling, sale and use of explosives, explosive materials, and small arms ammunition. The manufacture, storage, handling, sale and use of fireworks shall be governed by Chapter 70.77 RCW and by Chapter 212-17 WAC and local ordinances consistent with Chapter 212-17 WAC.

Exceptions:

1. The Armed Forces of the United States, Coast Guard or National Guard.
2. Explosives in forms prescribed by the official United States Pharmacopoeia.
3. The possession, storage and use of small arms ammunition when packaged in accordance with DOT packaging requirements.
4. The possession, storage and use of not more than 1 pound (0.454 kg) of commercially manufactured sporting black powder, 20 pounds (9 kg) of smokeless powder and 10,000 small arms primers for hand loading of small arms ammunition for personal consumption.
5. The use of explosive materials by federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities.
6. Special industrial explosive devices in which the aggregate contain less than 50 pounds (23 kg) of explosive materials.
7. The possession, storage and use of blank industrial-power load cartridges when packaged in accordance with DOT packaging regulations.
8. Transportation in accordance with DOT 49 CFR Parts 100-178.
9. Items preempted by federal regulations.

5601.1.1 Explosive material standard. In addition to the requirements of this chapter, NFPA 495 shall govern the manufacture, transportation, storage,

sale, handling and use of explosive materials. See also Chapter 70.74 RCW and Chapter 296-52 WAC.

5601.2.3 - Permit restrictions. The storage of explosive materials is prohibited within the limits of the City. The *fire code official* is authorized to limit the quantity of fireworks permitted at a given location. No person, possessing a permit for storage of fireworks at any place, shall keep or store an amount greater than authorized in such permit. Only the kind of fireworks specified in such a permit shall be kept or stored.

[WS] Denotes Washington State Amendment.

Effective July 1, 2013

(Insert facing page 333)
(Remove Washington State Amendment)

5608.2 Fireworks Discharge Prohibited. No person shall ignite or discharge any fireworks at any time.

Exceptions:

1. Displays authorized by permit issued by the city pursuant to RCW 70.77.260(2) now or as hereafter amended;
2. Use by a group or individual for religious or other specific purposes on an approved date at an approved location pursuant to a permit issued pursuant to RCW 70.77.311(2)(c) now or hereafter amended and (d);
3. Use of trick and novelty devices as defined in WAC 212-17-030, as amended, and as hereafter amended and use of agricultural and wildlife fireworks as defined in WAC 212-17-045, as amended and as hereafter amended.

5608.2.3 Standards for fireworks displays. All fireworks displays shall conform to the following minimum standards and conditions:

A. All fireworks displays must be planned, organized, and discharged by a state-licensed pyrotechnician.

B. A permit must be obtained from the city and approved by the fire chief or designee prior to any display of fireworks. The permit shall include the name of the applicant and his address, the name of the pyrotechnician and his address, the exact location, date and time of the proposed display, the number, type and class of fireworks to be displayed, and the manner in which the fireworks are being stored prior to the public fireworks display.

C. The applicant for a display of fireworks permit shall include with the application evidence of a bond issued by an authorized surety or a certificate of public liability insurance. Such bond or certificate shall conform to the requirements set forth in RCW 70.77.285 and 70.77.355.

D. A drawing shall be submitted with the application to the fire chief showing a plan view of

the fireworks discharge site and the surrounding area within a 500-foot radius. The drawing shall include all structures, fences, barricades, streets, fields, streams, and any other significant factors that may be subjected to ignition or that may inhibit firefighting capabilities.

E. When, in the discretion of the fire chief, such requirement is necessary to preserve the public health, safety and welfare, the permit may, at the direction of the fire chief or designee, require that a Bellevue fire pumper and a minimum of three firefighters shall be on site 30 minutes prior to and after the conclusion of the display. All compensation for fire personnel and apparatus will be paid by the applicant in an amount calculated according to the Washington State Fire Chiefs Association's fee schedule and shall be designated to the Bellevue fire department.

F. All combustible debris and trash shall be removed by the applicant from the area of discharge for a distance of 300 feet in all directions.

G. Applicant shall dispose of all unfired or "dud" fireworks in a safe manner.

H. Applicant shall provide the fireworks discharge site a minimum of two 2A-rated pressurized water fire extinguishers and one fire blanket.

I. The permit may be immediately revoked at any time deemed necessary by the fire chief or designee due to any noncompliance or weather conditions such as extremely low humidity or wind factor. The display may also be canceled by accidental ignition of combustible or flammable material in the vicinity due to fall debris from the display.

J. Areas of public access shall be determined by the fire chief or designee and maintained by the applicant in an approved manner.

K. For displays other than the 4th of July, the permit application must also include a public notification plan for affected residents or businesses. This may include newspaper, radio, and/or television announcements; door to door

distribution of written announcements; reader boards and/or other methods or media. The public notification plan is subject to approval by the fire chief or designee. Costs associated with public notification to affected residents are to be borne by the permit applicant.

5704.2.7.2 Pressure limitations for tanks. Tanks shall be designed for the pressures to which they will be subjected in accordance with NFPA 30. If the static head with a vent pipe filled with oil exceeds 10 pounds per square inch (psi) (69 kPa), the tank shall be designed for the maximum static head that will be imposed.

5704.2.9.6.1 Locations where above-ground tanks are prohibited or restricted. Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited unless screened in accordance with the City of Bellevue Land Use Code (LUC) Section 20.20.525 as now or hereafter amended.

Exception: Areas zoned as LI (Light Industrial) and GC (General Commercial) as defined in the LUC and designated on the City's official zoning map.

Effective July 1, 2013

(Insert facing page 361)

6104.2 Maximum Capacity. Within the limits established by law restricting the storage of liquefied petroleum gas for the protection of heavily populated or congested commercial areas, the aggregate capacity of any one installation shall not exceed 2,000 gallons water capacity, except that in particular installations this capacity limit may be altered at the discretion of the chief after consideration of special features such as topographical conditions, nature of occupancy and proximity to buildings, capacity of proposed tanks, degree of private fire protection to be provided, and facilities of the local fire department. The storage of liquefied petroleum gas shall conform to the provisions of the local zoning ordinance. Districts for which this prohibition applies includes areas zoned as other than LI (Light Industrial) and GC (General Commercial) as defined in the City of Bellevue Land Use Code and designated on the City's official zoning map.